

SpireEngPatchTables
 File: H_COP_SPI_3TAB.xls
 Author: L.Lucas-hp



Procedure Summary

Objectives

This procedure will patch and correct bit-shifts and flips seen in three tables on-board SPIRE.

This is executed in the following manner

- Stop SPIRE monitoring
- Report, patch and re-report the first table
- Report, patch and re-report the second table
- Report, patch and re-report the third table
- Re-enable SPIRE monitoring

Based on procedure: SpireEngPatchTables
 Generated by SPIRE ICC:03/08/2010

Summary of Constraints

SPIRE must be PRIME.
 Real Time Science TM will be generated (and monitored by SPIRE ICC).

Spacecraft Configuration

Start of Procedure

SPIRE mode = REDY

End of Procedure

SPIRE mode = REDY

Reference File(s)

Input Command Sequences

Output Command Sequences

HCS3TAB

Referenced Displays

ANDs	GRDs	SLDs
SA_7_559		(None)
ZAZ90999		
SA_1_559		

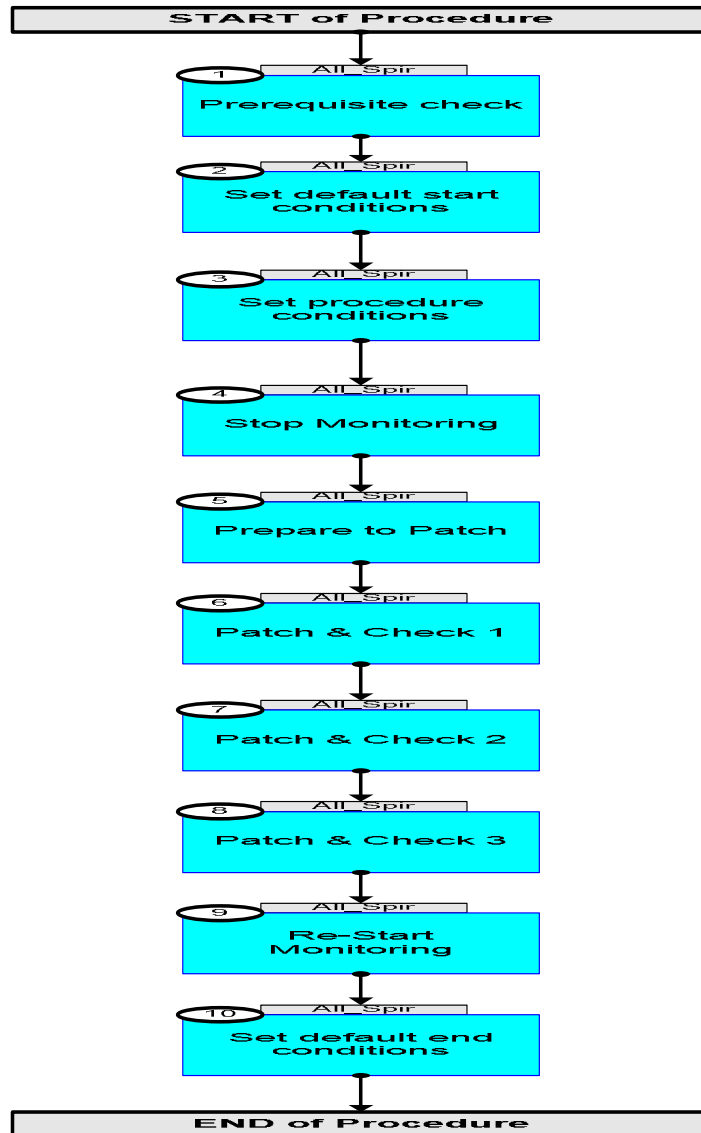
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
17/08/2010		1	Created	L.Lucas-hp	
17/08/2010	3.1	2	Removed unnecessary ETs	L.Lucas-hp	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
Beginning of Procedure					
TC Seq. Name :HCS3TAB (SpireEngPatchTables3) HCS3TAB TimeTag Type: Y Sub Schedule ID: <input type="checkbox"/>					
1		Prerequisite check		Next Step: 2	
1.1		HSC/ICC input			
		Verify that the HSC has supplied a valid OBSID value: OBS_ID = 0xnnnn nnnn			
1.2		TM Checks			
		Check Telemetry, for comparison later THSK SM00T500		AND=SA_7_559	
		Check telemetry MODE SM00M500 = REDY		AND=SA_7_559	
2		Set default start conditions		Next Step: 3	
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands			
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SP03N500 0 <hex>	SC003500	TC
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID SP01N500 80010001 <hex>	SC001500	TC
		Verify Telemetry BBFULLTYPE SM2LN500 = ClearObs		AND=ZAZ90999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	TC	
	ET=+ UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500 00000000 <hex>	TC	
		Verify Telemetry OBSID SM10N500	= 00000000 <hex>	AND=ZAZ90999	
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	TC	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80000000 <hex>	TC	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ90999	
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	TC	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80020001 <hex>	TC	
		Verify Telemetry BBFULLTYPE SM2LN500	= SpireBbStartOb	AND=ZAZ90999	
3		Set procedure conditions		Next Step: 4	
	ET=+ UT=+00.00.00	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS Subsch. ID : 370 Det. descr. : RESET DRCU COUNTERS	SCD00505	TC	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		WAIT a few minutes and ensure monitoring has been stopped			
		Verify Telemetry HK_MON_STATUS SM80X500	= STOPPED	(None)	
		Confirm with SPIRE ICC that monitoring has stopped and it is ok to proceed.			
5		Prepare to Patch		Next Step: 6	
	ET=+ UT=+00.00.05	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 8D620001 <hex>	TC	
		Verify Telemetry BBFULLTYPE SM2LN500	8D62 (hex)	AND=ZAZ90999	
6		Patch & Check 1		Next Step: 7	
		The next three TCs are for patching and checking the FIRST SPIRE on-board Table			
	ET=+ UT=+00.00.00	REPORT_TABLE REPORT_TABLE Command Parameter(s) : TABLEID_REPTAB SPB2N500 INDEX_REPTAB SPB3N500 COUNT_REPTAB SPB4N500 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	SCB01500 50 <hex> 2 <hex> 1 <hex>	TC	
	ET=+ UT=+00.00.02	UPDATE_TABLE UPDATE_TABLE Command Parameter(s) : TABLEID_UPDTAB SPB5N500 INDEX_UPDTAB SPB6N500 N_UPDTAB SPB7N500 DATA_UPDTAB SPB8N500 TC Control Flags : GBM IL DSE --- --- --- Subsch. ID : 370 Det. descr. : UPDATE CONTENTS OF A TABLE	SCB02500 50 <hex> 2 <hex> 1 <dec> (Def) 20140000 <hex>	TC	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
	ET=+ UT=+00.00.02	REPORT_TABLE REPORT_TABLE Command Parameter(s) : TABLEID_REPTAB SPB2N500 INDEX_REPTAB SPB3N500 COUNT_REPTAB SPB4N500 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	SCB01500	TC	
		Confirm with SPIRE ICC that the table report indicates successful patch, proceed only with SPIRE go-ahead.			
7		Patch & Check 2		Next Step: 8	
		The next three TCs are for patching and checking the SECOND SPIRE on-board Table			
	ET=+ UT=+00.00.02	REPORT_TABLE REPORT_TABLE Command Parameter(s) : TABLEID_REPTAB SPB2N500 INDEX_REPTAB SPB3N500 COUNT_REPTAB SPB4N500 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	SCB01500	TC	
	ET=+ UT=+00.00.02	UPDATE_TABLE UPDATE_TABLE Command Parameter(s) : TABLEID_UPDTAB SPB5N500 INDEX_UPDTAB SPB6N500 N_UPDTAB SPB7N500 DATA_UPDTAB SPB8N500 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : UPDATE CONTENTS OF A TABLE	SCB02500	TC	
	ET=+ UT=+00.00.02	REPORT_TABLE REPORT_TABLE Command Parameter(s) : TABLEID_REPTAB SPB2N500 INDEX_REPTAB SPB3N500 COUNT_REPTAB SPB4N500 TC Control Flags : GBM IL DSE --- -- --- Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	SCB01500	TC	
		Confirm with SPIRE ICC that the table report indicates successful patch, proceed only with SPIRE go-ahead.			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment												
8		Patch & Check 3		Next Step: 9													
		The next three TCs are for patching and checking the THIRD SPIRE on-board Table															
	ET=+ UT=+00.00.02	REPORT_TABLE <div style="text-align: right;">REPORT_TABLE</div> Command Parameter(s) : <table style="margin-left: 40px; border: none;"> <tr><td>TABLEID_REPTAB</td><td>SPB2N500</td><td>5 <hex></td></tr> <tr><td>INDEX_REPTAB</td><td>SPB3N500</td><td>593 <hex></td></tr> <tr><td>COUNT_REPTAB</td><td>SPB4N500</td><td>1 <hex></td></tr> </table> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	TABLEID_REPTAB	SPB2N500	5 <hex>	INDEX_REPTAB	SPB3N500	593 <hex>	COUNT_REPTAB	SPB4N500	1 <hex>	SCB01500	TC				
TABLEID_REPTAB	SPB2N500	5 <hex>															
INDEX_REPTAB	SPB3N500	593 <hex>															
COUNT_REPTAB	SPB4N500	1 <hex>															
	ET=+ UT=+00.00.02	UPDATE_TABLE <div style="text-align: right;">UPDATE_TABLE</div> Command Parameter(s) : <table style="margin-left: 40px; border: none;"> <tr><td>TABLEID_UPDTAB</td><td>SPB5N500</td><td>5 <hex></td></tr> <tr><td>INDEX_UPDTAB</td><td>SPB6N500</td><td>593 <hex></td></tr> <tr><td>N_UPDTAB</td><td>SPB7N500</td><td>1 <dec> (Def)</td></tr> <tr><td>DATA_UPDTAB</td><td>SPB8N500</td><td>fffff054 <hex></td></tr> </table> TC Control Flags : <div style="text-align: right;">GBM IL DSE --- --- ---</div> Subsch. ID : 370 Det. descr. : UPDATE CONTENTS OF A TABLE	TABLEID_UPDTAB	SPB5N500	5 <hex>	INDEX_UPDTAB	SPB6N500	593 <hex>	N_UPDTAB	SPB7N500	1 <dec> (Def)	DATA_UPDTAB	SPB8N500	fffff054 <hex>	SCB02500	TC	
TABLEID_UPDTAB	SPB5N500	5 <hex>															
INDEX_UPDTAB	SPB6N500	593 <hex>															
N_UPDTAB	SPB7N500	1 <dec> (Def)															
DATA_UPDTAB	SPB8N500	fffff054 <hex>															
	ET=+ UT=+00.00.02	REPORT_TABLE <div style="text-align: right;">REPORT_TABLE</div> Command Parameter(s) : <table style="margin-left: 40px; border: none;"> <tr><td>TABLEID_REPTAB</td><td>SPB2N500</td><td>5 <hex></td></tr> <tr><td>INDEX_REPTAB</td><td>SPB3N500</td><td>593 <hex></td></tr> <tr><td>COUNT_REPTAB</td><td>SPB4N500</td><td>1 <hex></td></tr> </table> TC Control Flags : <div style="text-align: right;">GBM IL DSE --- --- ---</div> Subsch. ID : 370 Det. descr. : REQUEST TM PACKETS REPORTING CONTENTS OF A TABLE	TABLEID_REPTAB	SPB2N500	5 <hex>	INDEX_REPTAB	SPB3N500	593 <hex>	COUNT_REPTAB	SPB4N500	1 <hex>	SCB01500	TC				
TABLEID_REPTAB	SPB2N500	5 <hex>															
INDEX_REPTAB	SPB3N500	593 <hex>															
COUNT_REPTAB	SPB4N500	1 <hex>															
		Confirm with SPIRE ICC that the table report indicates successful patch, proceed only with SPIRE go-ahead.															
9		Re-Start Monitoring		Next Step: 10													
	ET=+ UT=+00.00.02	SET_BBID <div style="text-align: right;">SET_BBID</div> Command Parameter(s) : <table style="margin-left: 40px; border: none;"> <tr><td>BUILDING_BLOCK_ID</td><td>SP01N500</td><td>8D520001 <hex></td></tr> </table> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	BUILDING_BLOCK_ID	SP01N500	8D520001 <hex>	SC001500	TC										
BUILDING_BLOCK_ID	SP01N500	8D520001 <hex>															

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	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 0 <hex> Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500	TC	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 80000000 <hex> TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500	TC	
		Verify Telemetry BBFULLTYPE SM2LN500 = Null AND=ZAZ90999			
	ET=+ UT=+00.00.01	SET_OBSID_RAW SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 50000000 <hex> TC Control Flags : GBM IL DSE ---- ---- Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500	TC	
End of Sequence					
End of Procedure					